Peer-review report of

Ziemer, C.T., Schmid, P., Betsch, C., & Rothmund, T. (2024). Identity is key, but Inoculation helps – how to empower Germans of Russian descent against pro-Kremlin disinformation. advances.in/psychology, 2, e628359. https://doi.org/10.56296/aip00015¨

Round 1

Dear Authors,

Thank you for submitting your engaging research to our special issue. I had the privilege of receiving reviews from two experts in the field of psychological inoculation, to whom I extend my gratitude for their constructive and thorough feedback. Prior to reviewing their evaluations, I read and evaluated your manuscript myself. It is clear that we all recognize the strengths inherent in your work. The issue you address is undeniably of significant social importance, and we were collectively impressed by the materials employed in your inoculation manipulation. The pre-registration of your analyses stands as another notable strength, a detail which merits mention within the abstract. Overall, despite the presence of several typographical errors that require attention in a revised submission, the manuscript is well-crafted and compelling.

However, as is the case with nearly all submissions, there are areas that warrant further refinement. The reviewers have provided detailed feedback on specific aspects they would like to see enhanced (attached to the end of this email), and I will not duplicate their comments here. Instead, I urge you to carefully consider each point raised and to incorporate these modifications into your revised manuscript if you agree with them. I request that you accompany your revised submission with a letter that itemizes your responses to each comment, including excerpts that highlight the implemented changes.

Furthermore, I have identified several points, some of which align with the reviewers' observations, that I believe should be addressed in your revision:

General Framing

The integration of inoculation theory with social identity presents a compelling framework for your study. However, the operationalization of social identity raises some concerns. It is problematic to deduce an individual's group identity solely based on their heritage. While you acknowledge a correlation between participants' heritage and their social identity in your discussion, these two are conceptually

distinct. I was reassured to discover that you have indeed employed an appropriate measure to assess social identity. Consequently, I ask that you conduct and report additional analyses with it. These should replicate the current analyses (that you should also report) that use the original grouping variable (German versus Russian German), substituting this grouping variable with the continuous Russian identification variable. This variable should accordingly also be described in the methods section, and analyses should test for both main effects and interactions with it. Such an approach will enhance the credibility of the social identity framework within your paper and yield more nuanced insights.

Furthermore, it is imperative to refrain from employing dual identity reasoning unless your data explicitly indicate and considers statistically that individuals exhibit strong identification with both being German and Russian.

Depending on the outcomes of these additional analyses, it may be necessary to moderate some of the conclusions drawn regarding the influence of social identity in your findings. Please note that my editorial decision will not be predicated on the results of these analyses, but rather on the thoroughness and rigor with which they are conducted and reported.

Introduction

I concur with the reviewers' recommendation for more elaboration regarding your conceptual framework in the introduction. Specifically, a more detailed definition of misinformation/disinformation and the relevant susceptibility is essential. Moreover, it is crucial to elucidate the concept of narrative inoculation (if you prefer that term) and its distinction from other inoculation approaches. This clarification will not only underscore the novelty of your research but also delineate it from prior studies. Providing precise definitions and explanations will strengthen the foundation of your study and enhance its contribution to the field.

The population of German Russians, as indicated in your introduction, appears to be significantly underestimated. According to available data (https://www.bpb.de/themen/migration-integration/russlanddeutsche/249842/geschichte-der-russlanddeutschen-ab-mitte-der-1980er-jahre/), their numbers are considerably higher. Additionally, the geographic origins of this group extend beyond the regions mentioned in your footnote; many originate from a variety of other former Soviet republics. It would therefore be prudent to revise the footnote to reference "other former Soviet republics" for a more accurate representation unless the sample only consists of people with a migration background from Russia specifically. Furthermore, providing a more comprehensive background on German Russians could enhance the understanding of their complex relationship with Russia and help avoid potential

stigmatization. It is important to acknowledge that many within this community experienced severe persecution in the Soviet Union. Such context is vital for a nuanced understanding of their social and historical background. Lastly, it is essential to clarify whether your sample included Jewish immigrants from the former Soviet Republics (a sizeable group in Germany), as their experiences and identities may differ significantly from those of ethnic German Russians. This distinction could have implications for your study's findings and their interpretation.

Introducing references for the "three prominent pro-Russian disinformation narratives" within the introduction would strengthen the foundation of your paper. Providing these citations early on will not only bolster the credibility of your selection but also give readers a clearer understanding of the context and significance of your research from the outset. While it is commendable that these references are included in the methods section, an early exposition in the introduction can effectively set the stage for your study, helping to align the reader's expectations with the scope and focus of your investigation.

Incorporating an explanation for the use of quota-based recruitment for only one sample of your study within the introduction is essential for clarifying your research design and methodology later on.

Methods and Analyses

Addressing the demographic disparities between your samples, particularly the notable differences in age and gender composition, is crucial for contextualizing your findings. It is imperative to extend this comparison to encompass other demographic variables as well such as education levels and socioeconomic status (SES). A comprehensive table detailing the demographic characteristics of both samples (including statistical comparisons) will help readers understand the populations we may generalize your results to. This table should include, but not be limited to, age, gender, education, and SES. Additionally, providing insights into the migration histories of the German Russians in the table will offer valuable context, shedding light on potential factors influencing the observed outcomes.

Given the considerable demographic differences observed in your results, it is critical to ensure that these disparities do not account for the findings. Therefore, for all analyses, I recommend conducting robustness checks by replicating your findings using ANCOVAs, with controls in place for the demographics that significantly diverge between the two samples.

To facilitate a comprehensive understanding of the relationships within your data, I suggest presenting a correlation table in the main text rather than SOM. This table

should display correlations for the two samples distinctly: one sample's correlations on the left side of the diagonal and the other sample's correlations on the right side. Include correlations involving the experimental factor as well (coded binary). Such a detailed presentation will be particularly beneficial for other researchers engaged in tasks like meta-analyses.

This is a critical point that converges with comments from both reviewers: The method by which you averaged the scores across the 10 items in the disinformation recognition task, particularly when only three of them pertained to disinformation, requires further clarification. This approach raises questions about the rationale behind combining these items and the implications for your findings. Additionally, it is crucial to specify the scoring system used. If respondents could indeed score between 0 (no narrative identified) and 3 (all narratives identified) for each item, this should be explicitly stated to ensure clarity regarding the interpretation of these scores and utilized statistically.

More critically, the disinformation recognition task presents an opportunity to assess whether participants mistakenly identified true posts as containing the three disinformation narratives. This point, aligned with the reviewers' feedback, suggests the need to analyze the scores for the seven true and three false posts separately. This analysis could reveal whether the inoculation manipulation inadvertently influenced participants' perceptions of these true posts (a common criticism). It appears less meaningful to aggregate the scores across all items given the distinct nature of the disinformation and true information items. Therefore, I ask you to conduct and present separate analyses for each measure. The concerns raised about the disinformation credibility scale mirror those of the disinformation recognition task – again separate analyses will be required.

Furthermore, to enhance the transparency and utility of your research, please include an example of both a true and a false Facebook post in your manuscript. Give more details on how these stimuli were generated, what considerations you had in the process. Ensure that all materials used in the study are provided in the SOM, as requested by Reviewer 2. This will not only facilitate a better understanding of your methodology but also support future research endeavors that may wish to build upon your findings.

The sequence in which the media exposure variables were assessed, particularly after the experimental manipulation, raises concerns regarding their potential influence by the manipulation itself. To address this issue, it is crucial to conduct analyses to test whether these variables were indeed unaffected by the experimental conditions. Should the manipulation have influenced the media exposure variables, their suitability for use in moderation analyses would be compromised.

The low alpha value observed for one of the media scales warrants further investigation. Consider re-evaluating the scale by omitting an item that may be diminishing its internal consistency.

Please change “$\eta^2_t = .0005$” to “$\eta^2_t < .001$”. Also, what does the subscript t stand for? I would have expected a “p” for partial, but I am sure you meant a different effect size variant here.

In the “Identity-as-Moderator Research Question” section, please provide the test statistics for all tests, not just those with a *p* under 0.1.

The omission of the German media exposure variable as a potential moderator warrants attention. Exploring its influence could reveal whether it has an effect opposite to that of Russian media exposure. At a minimum, controlling for German media exposure is advisable to account for general media consumption, potentially serving as a proxy for mediated war exposure. This adjustment could help in distinguishing the specific impact of consuming Russian media.

The phrase "the interaction of a and b as three predictors" on page 16 could benefit from clarification. Presenting a table that outlines the tested models will enhance the transparency and comprehensibility of your analyses for readers. Remember, tables are exempt from word count limitations, making this an effective way to detail complex information without breaching length constraints.

It is unclear why you compared high and low (-/+1 *SD*) Russian media consumers, when this could be tested using the continuous scale.

Please describe the slopes of the p = .07 interaction effects in the text, including slope statistics.

The approach to *p*-value cutoffs varies among researchers. Rather than labeling effects as "marginally significant," it would be more appropriate to simply describe the observed effects and their respective *p*-values, while noting the trends and emphasizing that these findings are not considered statistically significant by conventional standards (researchers agree on whether to ignore these findings or interpret them – I leave that decision to you). This cautious interpretation should be

maintained in the discussion section as well, where discussing trends is acceptable as long as the limitations are clearly acknowledged.

Stylistic Issues

Please make sure headings are accurately capitalized in line with APA 7.

Please avoid abbreviations such as “doesn’t” (e.g., pages 8, 16).

In text, please write instances such as “Erlich & Garner (2023)” as “Erlich and Garner (2023)” (Only use & in parentheses citations)

All numbers under 12, except for statistics, should be written out according to APA 7 (see, e.g., page 12, “10 fictious Facebook posts”).

Please italicize scale anchors in line with APA 7 (i.e., *strongly disagree*).

Please make sure all statistical letters (including *d*, *n, N*) are italicized. There are some inconsistencies.

Please avoid causal language (e.g., that identity “increased” some other variable), when this concerns correlational analyses.

Please make sure to add DOIs as URLs to all references. Make sure to not capitalize book or article titles, in line with APA7.

Please make sure to always present three-digits p-values.

Addressing the points raised will undoubtedly enhance the quality of your already significant contribution to this special issue. Aware of the various revisions requested, an additional 2,000 words are permitted for these adjustments. Thank you once again for submitting your intriguing research. I look forward to receiving the revised version within one month's time.

Best,

Jonas R. Kunst,

Editor-in-Chief

advances.in/psychology

Reviewer 1:

Summary of key points and content

Thank you so much for the opportunity to review this paper titled “Identity is key, but Inoculation helps: How to empower Russian Germans against pro-Kremlin disinformation”. This work is timely and promising with regards to its findings, particularly around the efficacy of inoculation regardless of the social identity of participants. That is, this work instils hope with its findings that pre-bunking propaganda that is likely to align more closely with one’s social identity still improves the detection of said propaganda. The article begins with an informative summary of relevant research on misinformation in the context of Russia’s invasion of Ukraine, before illuminating the main components of the research around misinformation, social identity, and inoculation. The methods that follow are clear and appear to provide all relevant details necessary for interpretation and replication. The results are clear and concise, and very easy to read and interpret. The general discussion was also clear and concise despite some need (in my opinion) for expansion and elaboration (see comments in “weaknesses and recommendations” section). Overall, I believe the timely nature of this work in the current political climate, coupled with the appropriate techniques used to test the efficacy of this intervention make it an impressive candidate for publication.

Strengths

I would like to start by mentioning the infographic of the inoculation intervention in the methods section. I must say that I thought it was incredibly clear and impressive and was likely a very effective way of administering the message. If anything, I believe this could be emphasised as a relatively novel approach to administering pre-bunking messages in your introduction and discussion. That said, maybe I’m just not very creative when it comes to my ideas on how to present intervention messages in surveys…

I was especially interested in the implementation of narrative inoculation specifically. This appeared to be a promising way of inoculating participants against many relevant manipulation tactics at once. I also appreciated the basis of the narrative strategies that were pre-bunked being informed by an impressive plethora of previous research, which was not restricted to the academic context.

Overall, I think the strengths of this article outweigh any limitations or shortcomings. However, I will now offer my recommendations to strengthen the paper to the best of my knowledge. I hope my comments are helpful and constructive.

Weaknesses and recommendations

I believe the issue that could garner the most criticism from certain researchers is the way in which manipulation detection was measured. Importantly, I believe the method of specific detection of manipulation was appropriate and likely robust, especially in that they were tasked with indicating exactly which manipulation tactic they were (or were not) being presented with. However, I was left slightly confused by the presentation of non-manipulative posts that did not appear to be used in the analysis in a way that allowed for analysis of whether the inoculation altered perceptions of non-manipulative information.

I would like to clarify that I believe the meta-analysis by Lu and colleagues (2023) quite convincingly demonstrates that inoculation improves the detection of both fake and real news (albeit to a lesser extent for the latter). However, the way you have calculated the "Disinformation recognition" variable does sort of provide an indication of discernment but does not enable us to see whether this was simply driven by better detection of disinformation and not real information, or better detection of both. I believe this is important regarding recent debates in the literature (e.g., Modirrousta-Galian & Higham, 2022). To provide further clarification for this important distinction, I would recommend the following: As an addition to your current approach to calculating your variables, provide additional exploratory analyses wherein the detection of disinformation and non-manipulative posts are separated as outcome variables. This way, readers will be able to determine whether the intervention improved disinformation *discernment,* general *distrust,* general *gullibility*, or simply better detection of disinformation alone. To reiterate, I don't think it's a huge issue if disinformation detection alone is improved, but it's important to make this clear to readers.

As a short caveat, I couldn't find the posts that were presented to participants on the OSF page or in the Supplement. I trust that they were appropriate but would have liked to analyse whether there were potential confounds. For example, from my own experience, sometimes the non-manipulative posts are tricky to create without having some contamination from common political or disinformation content.

My second main concern focuses on the nature of "narrative inoculation". Again, I would like to preface this by mentioning that I really like the idea of narrative inoculation, at least in the form that I intuitively interpret it as from the paper. However, this is sort of my issue: I'm not quite clear on what it is from the authors' perspective in this case. From the information presented, it appears to be an inoculation method which pre-bunks multiple manipulation tactics at once (e.g., deflection, Whataboutism), grouped together by the narrative that they are conducive to spreading. If this is the case, I think it's a really promising strategy to provide multiple pre-bunks in one blow, but this is not exactly explained in the manuscript anywhere. I would recommend adding a sub-section to your inoculation section at the end of the introduction that defines narrative inoculation, gives some examples of how it may operate, and most importantly, what makes it distinctive from other forms of inoculation (e.g., technique-based, logic-based etc.).

Aside from those two main concerns, here are some smaller ones that I believe should be addressed. First, your power analysis indicated that you had .80 (?) power to detect an effect size of *d* = 0.39. However, the effect size range you obtained in the experiment did not reach that level even at the strongest effect. Of course, this is always a possibility when running experiments informed by previous research. Furthermore, if you provide additional analyses separating the real vs. disinformation post detection, these effect sizes may indeed reach the minimum able to be detected (after all, Lu et al., 2023 did the same I believe). However, I think this limitation needs to be addressed in your discussion section. The fact that Lu and colleagues (2023) have provided (in my opinion) convincing evidence for the efficacy of inoculation at reducing misinformation susceptibility should mean that this issue with power does not nullify the results. Nevertheless, it is an important thing to bring up and make recommendations for future research on.

Second, it appears that there wasn't a focus on providing an "attack" message after administering the inoculation message. That is, after the two main components of forewarning and pre-emptive refutation, we can often include a message that tests participants' "psychological immunity" against the relevant tactics with a "small dose" of the disinformation. I don't think it's necessarily a huge limitation that this wasn't included as there doesn't seem to be consensus on whether to include this or not in the literature. Nevertheless, I think some consideration of this in the discussion is warranted to evaluate the components of this approach. While not a requirement, providing participants with feedback on their scores (e.g., Leder et al., 2024), and therefore the promotion of some form of reflection may boost the efficacy of the intervention you administered here even more.

Third and finally, I think the discussion was generally a bit thin. Specifically, I think there could have been more consideration of future recommendations, real-world implications, and an overarching conclusion. With regards to future recommendations, I believe a word on scalability may be appropriate. Perhaps emphasising the efficacy of your infographic as a low-cost alternative to other passive inoculation interventions like the videos on inoculation.science would help. With regards to real-world implications, how do you think this might provide promising options to counter Russian disinformation among Russians specifically? Perhaps a counter-narrative to the propaganda in some form of online campaign? Finally, I think just tying it off with the take home message that this appears to work among the specific populations of interest is important for policymakers who might unfortunately only be skimming the paper rather than delving into its contents.

Again, thank you so much for the opportunity to review this paper. I wish you the best in addressing the reviews you receive and hope this important work can be published eventually in some form so that policymakers and stakeholders can base future interventions on the fascinating central premise of this article.

References

Leder, J., Schellinger, L., Maertens, R., Chryst, B., Linden, S., & Roozenbeek, J. (2023, September 24). Feedback Exercises Boost Discernment for Gamified Misinformation Interventions. https://doi.org/10.31234/osf.io/7k2mt

Lu, C., Hu, B., Li, Q., Bi, C., & Ju, X. (2023). Psychological inoculation for credibility assessment, sharing intention, and discernment of misinformation: Systematic review and meta-analysis. *Journal of Medical Internet Research*, *25*, e49255. https://doi.org/10.2196/49255

Modirrousta-Galian, A., & Higham, P. A. (2022, August 18). Gamified Inoculation Interventions Do Not Improve Discrimination Between True and Fake News: Reanalyzing Existing Research With Receiver Operating Characteristic Analysis. https://doi.org/10.1037/xge0001395

Reviewer 2:

This paper uses a quasi-experimental approach to investigate the impact of (Russian-German vs German) social identity on susceptibility to pro-Kremlin disinformation and beliefs, and examines whether an inoculation intervention can be used to reduce this. On the whole, the results promisingly show that identity plays a role in some judgements and beliefs, and that inoculation improves resistance to misinformation across all conditions. The results surprisingly also show that there is no difference between being able to recognise pro-Kremlin misinformation techniques between Russian-Germans and Germans, a finding I think could be highlighted more than is the case in the current manuscript.

The paper provides a great literature review and sets the scene nicely for the study. It is easy to follow the authors' thoughts, the hypotheses are well justified as is the research design, the methods are interesting and appropriate, and the inoculation intervention is really nicely created. Here are my suggestions for improvement:

Theoretical Background/ Introduction:

The paper provides a great comprehensive overview of the impact of propaganda and disinformation in the given context. It is well-structured, has a good flow and introduces both the topic of the specific misinformation problem and relevant literature on social identity and inoculation. I would've liked to see a bit more unpacking of what inoculation is, but I also understand the space constraints. My only other suggestion for the literature review/intro is that it may benefit from some more paragraphs/sections, e-g., new section from: *"The world-wide operating Russian propaganda machine is very elaborated."* (pg. 4).

Methods:

The methods are indeed appropriate and I think the inoculation message is excellently written.

I have some questions regarding the measures.

Measures:

- What was the attention check? Given that 58 participants failed it, it seems important to know what this entailed. I see it is included in the pre-registration, but would be good to also include in the manuscript.

- Was perceived credibility of true news not measured? These results would be interesting to see reported to ensure the inoculation didn't make participants sceptical of all the information.

This will be reflected more in my comments on the results, but I think it is quite important that the authors define misinformation susceptibility, either in the methods or in the introduction. When the authors discuss misinformation susceptibility in relation to inoculation, this seems to include ability to *recognise* it (and for inoculation, a significant effect is found), but when they discuss identity, where an effect is not found for this measure, it seems to not include ability to recognise it (at least the authors conclude that identity is key, even though identity didn't impact ability to recognise misinformation).

Results:

Some general questions for the results-section:

- Did the authors not run analyses on the true information items? Does inoculation also reduce belief in those?

- Since the authors asked about what generation the respondents were (1st, 2nd or 3rd generation Russian-Germans), it would be interesting to see whether this played a role in the key outcome measures.

A more signifiant comment is that the authors are concluding that identity is key in misinformation susceptibility in this context. However, for one of the two key measures for the misinformation items (perceived credibility + ability to recognise techniques), there was no significant difference between the two groups: *"In contrast with H1, participants with (M = 5.77, 289 SD = 2.47) and without (M = 5.65, SD = 2.39) a Russian migration background did not differ in their ability to recognize Russian disinformation as such, F(1, 593) = .28, p = .60, η2t = .0005"* (pg. 13). This is quite an interesting finding, but based on this, I do not think the authors can make the conclusion that identity is "key" (pg. 15) when it comes to misinformation susceptibility. This could only have been the case if the authors had previously defined misinformation susceptibility as only being the perceived credibility of the misinformation (which is significantly different between the two groups); but this was described as being comprised of the two measures. E.g., when describing that inoculation reduces misinformation susceptibility, the authors focus on how inoculation makes participants better at recognising the techniques, and for this reason it must be assumed that the authors believe this is part of misinformation

susceptibility. For this reason, I would advise that the authors adjust their abstract and discussion to reflect this: Identity seems to only be “key” for some aspects of misinformation susceptibility. I comment on this especially because it seems to be a major conclusion in the paper, both in the discussion, abstract and title, all of which I think should be changed to include this nuance.

There are several places in the results and discussion sections, where the authors describe differences between groups as “marginally significant” which I do not think is appropriate. E.g., *“Only the interaction effect between inoculation and identity on solidarity with Ukraine becomes marginally significant, indicating that inoculation has less effect on solidarity with Ukraine for participants with a Russian migration background ((F(1, 587) = 2.9, p = .088, 307 η2t = .005))”* (pg 14). The authors should just say “not significant”. There is little justification for calling it even marginally significant given it is actually far beyond the threshold of 0.05, but there are two or three more places where the authors also say “marginally significant” when the p-value is .07 (e.g.; “*We found marginally significant interaction effects between Russian media exposure and the intervention on disinformation recognition, b = -.15, 95% CI [-0.31, 0.01], SE = .14, t(592) = -1.83, p =.07, and perceived credibility of pro-Russian disinformation, b = .15, 95% CI [-0.01, 0.30], SE = .09, t(587) = 1.8, p = .07”* (pg. 15) which again I do not think is appropriate. This should just be reported as not significant.

Discussion:

Going back to the point above regarding results, the authors start the discussion by noting that: “Identity is key”. It seems for some measures, identity is not exactly “key” because there was no difference in ability to spot misinformation between those with Russian and non Russian background. In fact, I think this is a really interesting finding in itself that the authors don’t necessarily fully explore or discuss.

In relation to this the authors conclude:*“Our findings also show that having a dual Russian identity is associated with higher susceptibility to pro-Russian disinformation.”* (pg. 16) It seems this was only somewhat the case though. If participants found the information credible, but were able to identify it as misinformation, does this mean they are more susceptible? I am not sure. It would be clearer if the authors wrote that the findings showed that having a dual Russian identity was associated with finding pro-Russian disinformation as more credible, but it was not associated with a lower ability to recognise pro-Russian disinformation. I think it would be good to bring out the nuances in these findings and comment on why this may be the case- I think it would be interesting to get the authors’ take on this.

In the discussion, there are places where the authors discuss some effect differences that were not significant, which I do not think they can comment on. E.g., *“The effect of inoculation was somewhat smaller for individuals with high Russian media exposure but this pattern was also not statistically significant.*” (pg. 16). I do not think the authors can actually say that the effect of inoculation was smaller for one group than the other when this difference was not statistically

significant: We actually do not know, based on this data, whether it was in fact smaller or bigger, so I think the authors need to leave this out.

Abstract and Title:

In line with my comments above, I do think the authors need to change the title of the paper to reflect the nuanced pattern of results, as identity wasn't "key" for ½ of the disinformation measures. The authors could choose to focus on the credibility aspect though, e.g. identity is key to perceiving misinformation as credible, but inoculation helps.

I therefore have the same comment for the abstract where the authors present one finding without nuance: "First, we found that having a Russian identity 'increased individuals' susceptibility to disinformation'." But the other with: Second, we could demonstrate that inoculation improves participants' ability to recognize disinformation correctly and perceive it as less credible". Here it would be appropriate to say that having a Russian identity increased individuals susceptibility to judgeing disinformation as credible, but not to identifying it as disinformation (as the authors also highlight the dual-side to the inoculation effect).

Round 2

Dear Authors,

Thank you for submitting a thoroughly revised manuscript and for addressing our queries in great detail. I also express my gratitude to the reviewers for their diligent evaluations. Both are satisfied with the revisions. I concur that the paper has improved significantly and can be accepted for publication pending minor revisions. Most of these revisions are stylistic, and I am confident you can address them within much effort. Some issues were already mentioned in the previous round, so please ensure they are addressed meticulously.

General issues:

Please omit the term "quasi." You are presenting results from a comprehensive experiment with random assignment, and using the term "quasi-experimental," because you test its efficacy across different groups, diminishes the rigor of the study.

Thank you for testing the moderation by identity (the measure). However, this should be tested in a moderated regression that preserves the full range of the moderator rather than using a median split. I doubt the results will change substantially, but it is crucial that the full variation on this scale is utilized.

The discussion has improved significantly, yet it could engage more with previous work (it currently has almost no references). Readers would be interested in

understanding how your work aligns with and, most importantly, how it extends previous research. This section offers an opportunity to elaborate on the novelty of your intervention, connecting it to existing knowledge.

Stylistic issues:

1. In some instances, you use the term "steps of propaganda," which is somewhat unclear as the disinformation strategies you inoculate against do not necessarily need to occur in a specific order. Could you replace it with a different term? Perhaps "aspects of propaganda" would be more suitable.

2. Please ensure that you capitalize headings in accordance with APA Style, 7th Edition.

3. There are several statistics, particularly F-tests, that currently display only one decimal place. Additionally, there are p-values presented with only two decimal places. Please ensure that all statistics, including F-tests, are presented with two decimal places, and p-values are shown with three decimal places.

4. In Table 3, please replace the t columns with p-value columns for all analyses.

5. Please note that Greek letters are not italicized in APA7.

6. Correlation Table: Instead of using two colors, please present the means and standard deviations for the second group in italics and clarify this formatting choice in the table note. Additionally, ensure that all correlations to the right of the diagonal are presented in black font color. Adjust the note accordingly if needed to make it clear what these values refer to.

7. Please present figures in SVG format to ensure high resolution; these can be directly exported from R. This requirement applies primarily to figures but also extends to your inoculation materials, if feasible. If you cannot provide SVG files for the inoculation materials, please provide them as higher-resolution images.

8. There are still a lot of references that are not correctly reported or are incomplete. For instance, this is a journal article, but lacks a lot of the required information:

Rid, T. (2020). Active measures. The secret history of disinformation and political warfare. Farrar Strauss & Giroux https://doi.org/10.1093/ia/iiaa211

In this example, the journal name is not italicized but abbreviated (should be written out):Pereira, A., Harris, E., & Van Bavel, J. J. (2021). Identity concerns drive belief: The impact of partisan identity on the belief and dissemination of true and false news. Group Processes & Intergroup Relations: GPIR, 13684302211030004. https://doi.org/10.1177/13684302211030004

In this case, volume, issue, and page numbers are missing:Ryzhova, A. (2022). Motivated by political beliefs, not only by language: How Russian speakers in Germany compose their transnational news repertoires. Journalism, 14648849221130557. https://doi.org/10.1177/14648849221130557

These are only a few examples I have briefly selected. Please make sure to thoroughly streamline all references.

I am also sending you a file with some stylistic edits for your convenience.

Thank you again for submitting this revised and exciting manuscript to our special issue, which has greatly improved. I believe the manuscript is close to being ready for publication, and I do not plan to solicit further evaluations from the reviewers in the next round. Instead, I will make my decision based on your revisions. Please submit your revised manuscript by June 8.

Best,

Jonas R. Kunst

Reviewer 1:

Thank you very much for the opportunity to review this paper and to see the outcome after the revisions.

My main recommendation for the authors was to adjust the narrative throughout as the results showed that identity was not predictive of some of the outcome measures. I therefore did not think it was ideal to discuss identity being “key” as a main finding in the manuscript. In line with the editor’s recommendation, I too appreciate seeing the results from true and false news separately now. As this now changes the results in terms of identity playing a role in both the recognition and credibility measures, I agree with the authors that the narrative of “identity is key” is indeed fitting! This was great to see, and also further increases the importance of inoculation interventions.

I also appreciate that the term “marginally significant” is no longer being used, and that the authors do not discuss the non-significant differences between groups.

I see that the authors have added a little more information on inoculation theory - I do still think it is important to mention the roots of the theory (the underlying

biological metaphor) which the manuscript does not do - even if its just one sentence.

All my other minor suggestions have been addressed as well, thank you!

Just on a very minor note, I did notice some spelling errors throughout (e.g. quais-experimental, pg. 9), and the subheading words are sometimes capitalised and sometimes not. Also, I would not capitalise words like “Inoculation” or “Identification” in the main body of text, but I leave this up to the authors.

I appreciate the changes made in the manuscript throughout and I greatly support publication!

Reviewer 2:

I believe all comments I initially raised have been suitably addressed. Just to clarify, I think my comment about the attack message wasn’t properly articulated. Apologies for that. Bascially I was (attempting and failing to) suggest some consideration of this component in the discussion. For example, some reference to the fact that the questions acted as the attack message. This is at your discretion though as I don’t mean to be pedantic or unfair.

Round 3

Dear Authors,

Thank you for another round of constructive revisions. Congratulations, I believe your paper is now ready for publication in our special issue. It was very interesting to read your work on such an important topic. I am confident that it will make a significant contribution to the field. Our production team will contact you shortly.

Best,

Jonas R. Kunst